

SAM-137 ↓

July 25, 1969

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Washington, D. C. 20550

Dear Dr. Lewis:

Upon return from my vacation, I find your very encouraging letter of July 1 on my desk and apologize for not having answered sooner.

I spent three weeks in Europe and had occasion to visit numerous zoos, even obtained a skin biopsy for tissue culture from the only captive Sumatran rhinoceros (Copenhagen Zoo). In Europe, I had occasion to discuss the possibility of establishing such a tissue bank with numerous individuals. All were enthusiastic about it and urged that we proceed with it. Several of the men I spoke to are quite influential and would lend their support to it. Thus, Dr. Roth of the FAO in Rome; Dr. Schaurte, head of the "Rhino group" of the IUCN; Dr. Christensen, Editor of the Nordisk Vet. Med. J., and others. In November when I will have to be at WHO in Geneva I will visit the IUCN in Morges (Dr. Holoway) and try to get their support for it. Dr. Roth at FAO has tried before but their outfit has a sperm bank for some domestic stock only and reported that the expert committee of IUCN had, in the past, not evinced any interest. I believe they need to be convinced.

H. W. LEWIS

Personally, I feel that it is high time this thing gets underway while tissues of rare animals are still available; perhaps the international goodwill engendered by the moon adventure will be helpful. Also the fact that numerous animals are currently in culture which will never be gotten again (take the Sumatran rhino, three species of whale, a manatee, etc.).

It is difficult for me to make concrete proposals, particularly some that are coupled with specific monetary suggestions. I find it necessary that a small committee meet for one day soon at Washington to discuss this. Ideally, this would take place before Oct. 10. At that time will be the meeting of the International Zoo Directors Association in New York. They should receive a proposal, for their cooperation will be vital. A committee convened perhaps by you should include Josh Lederberg, T. C. Hsu, a man from A. D. Little (v.i.), some authoritative person from the American Type Culture Collection (for technical and monetary suggestions), and a person from the Smithsonian Institute. Perhaps R. v. Gelder (Curator Mammals, Museum Nat. Hist., N.Y. - I wrote him about this recently) should be asked.

On my way to Europe I met a cryo-engineer from A. D. Little who thought

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that for this purpose a self-regenerating Helium deep freeze would be the most satisfactory. They are now commercially beginning to become available and are the coldest temperature feasible. They market such refrigerators now, a price of \$25,000 was mentioned but I may be in error.

In my naive way of thinking about the problem at the present it seems that the following may be feasible with support by NSF, IUCN and a museum:

Establish in a museum a freezing unit, rigidly supervised by contract with a service engineer.

Establish guidelines of classification, mechanism of freezing and cataloging.

Prepare tissue culture ampoules, frozen in liquid nitrogen (perhaps in 3 labs: T. C. Hsu, ours, ATCC) and submit them periodically in nitrogen to the repository for freezing in helium.

Eventually it may be necessary or desirable to culture and prepare ampoules in the Museum itself. However, the staff, equipment, personnel (and interest?) there are veritable obstacles.

It would seem to me that to set it up should cost no more than \$50,000, probably much less. Then comes the annual service contract to service the refrigerator and some minor costs to the supplying laboratories, perhaps \$3-5000.

These are suggestions of my own only. I feel that a planning meeting in Washington soon is essential to come up with a concrete proposal. I am willing to travel on my own budget just so that things get started. But we must proceed now. No more than one repository is envisaged as it should be capable of holding all the samples one can obtain in the next 20 years.

I apologize that the reprints were omitted in the last mailing. They are now enclosed. It is my sincere hope that I will hear from you soon again and that the project can get underway.

Sincerely yours,

Kurt Benirschke, M.D.
Professor and Chairman

KB:ghd
CC: Drs. Lederberg, Hsu, Schaurte, and Roth